

A B S T R A C T

The device for reinitializing to a state $|0\rangle$ a
quantum bit device, or Qubit as it is otherwise known,
5 having two states $|0\rangle$ and $|1\rangle$ associated with respective
energy levels E_0 and E_1 where $E_0 < E_1$ comprises first means
(31, 32) for generating a temporary increase in the
probability of the quantum bit device relaxing from the
state $|1\rangle$ to the state $|0\rangle$ and second means (21) for
10 absorbing the transition energy $\Delta E_{01} = E_1 - E_0$ ceded by the
quantum bit device when it relaxes from the state $|1\rangle$ to
the state $|0\rangle$. The device is applicable to Qubits having
different physical media.